

Blanchard, Clarence E.

U.S. Serial No. 09/927,719

*Back
C. E. Schulz*

generally perpendicular to said mounting plate, said side thrust walls flanking respective adjoining portions of said outboard water jet propulsion system and arranged to prevent lateral displacement of said outboard water jet propulsion system due to side thrust in either direction.

REMARKS

Claims 29-48 are pending in the present application. Applicant appreciated the Examiner's indication of allowable subject matter in claims 34-42 and claims 45-48. In the Office Action of September 10, 2002, the Examiner rejected claims 43 and 44 under 35 U.S.C. §102(a) as being clearly anticipated by Schulz (USP 3,104,353). Claims 29-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schulz in view of Ishigaki (USP 6,283,805). Claims 29 and 43 have been amended to more clearly define over the art of record.

The Examiner rejected claim 43 and 44 under 35 U.S.C. §102(b) as being anticipated by Schulz stating that "as shown in figure 1, a thrust bracket (not numbered)" is located between the propulsion system and the hull. Applicant does not disagree that there is a bracket between the hull and the propulsion system of Schulz, but believes that bracket is not a "thrust bracket" as called for in claim 43. Applicant believes that a person of ordinary skill in the art would readily recognize that the bracket shown in Schulz, Fig. 1, is a pivot bracket that is used to adjust the trim of the outboard motor and not a thrust bracket as called for in claim 43. It does not restrain or prevent lateral rotation of the outboard.

"A claim is anticipated only if each and every element as set forth in the claim is found ... in a single reference." MPEP §2131.

Blanchard, Clarence E.**U.S. Serial No. 09/927,719**

Additionally, Applicant believes that the bracket of Schulz does not contain "side thrust walls" that "flank respective adjoining portions of said outboard water jet propulsion system to restrain lateral displacement of said adjoining portions of said outboard water jet propulsion system" as called for in claim 43 and as shown in Figs. 3 and 4. A person of ordinary skill in the art would readily recognize that replacing the mounting bracket of Schulz with the thrust bracket of the present invention would disable the steering of the Shultz outboard motor. In other words, a watercraft configured with an outboard engine of Shultz and the thrust bracket of the present invention would be inoperable — that is, it would not be able to turn.

Steering of the vessel of Shultz is done through rotation of the outboard motor along a vertical axis between the motor and the mounting bracket. The present invention does not have a vertical axis of rotation between the motor and the bracket. The motor is prevented from rotating or having lateral displacement due to the configuration of the thrust bracket with respect to the adjoining portions of the motor.

Regarding claim 44, the Examiner states that Fig. 1 of Schulz also shows a pivot tube located between the arms of the bracket. Applicant believes that a person of ordinary skill in the art would readily recognize that there is a pivot tube located between the arms of the mounting bracket of Schulz but that that tube is not a tilt pivot tube as called for in claim 44. The pivot tube in Schulz is used as a point of rotation of the outboard motor that is used to steer the vessel. Rotation of the outboard motor relative to this tube does not affect the trim of the motor.

Blanchard, Clarence E.**U.S. Serial No. 09/927,719**

This being the case, Applicant believes that each and every element of both claims 43 and 44 are not found in Schulz and as such, Applicant requests the withdrawal of the §102(b) rejection to claims 43 and 44.

The Examiner rejected claims 29-33 under 35 U.S.C. §103(a) as being unpatentable over Schulz in view of Ishigaki. Applicant believes that a person of ordinary skill in the art would readily recognize that the pivot bracket of Schulz is not a "thrust bracket" as called for in original claim 29. One is used for pivoting of the outboard for tilt function and the other is used to restrain lateral thrust. Applicant does not believe the pivot brackets of Schulz have the length or strength to prevent or restrain any lateral movement or rotation. Nonetheless, Applicant has amended claim 29 to more clearly define the thrust bracket of the present invention. The thrust bracket of the present invention prevents lateral rotation of the exhaust housing. Such is not the case in the prior art cited.

Examiner further states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Schulz by using an axial flow impeller as taught by Ishigaki instead of a radial flow impeller. The motivation would be to optimize design parameters including the thrust characteristics of the waterjet system." There is no suggestion or motivation within Ishigaki or Schulz to combine the structure of an exhaust housing pivotably mounted to a hull and flanked on opposite sides by the side walls of a thrust bracket to prevent lateral movement and including an axial flow pump as called for in claim 29.

As such, Applicant believes that current claim 29 is patentably distinct over the art of record and requests a notice of allowance of claim 29.

Blanchard, Clarence E.**U.S. Serial No. 09/927,719**

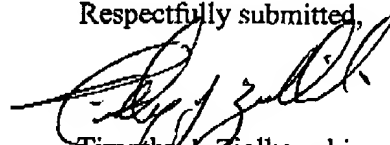
Regarding the Examiner's rejection of claims 30-33 under 35 U.S.C. §103(a), Applicant respectfully disagrees with the Examiner with respect to the art. However, in light of each of the aforementioned claims depending from what is believed an otherwise allowable claim, Applicant does not believe additional remarks are necessary and therefore believes that claims 30-33 are allowable pursuant to the chain of dependency.

Therefore, in light of the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 29-33 and 43-44.

Marked-up versions of the amendments made above may be found on pages 7 and 8.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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Blanchard, Clarence E.

U.S. Serial No. 09/927,719

REVISIONS:

29. (Once amended) A jet-powered boat comprising a hull having a stern and a bottom, an outboard water jet propulsion system mounted to said hull, ~~and a thrust bracket arranged between said water jet propulsion system and said stern of said hull and comprising side walls,~~ wherein said outboard water jet propulsion system comprises:

an engine;

an exhaust housing pivotably mounted to said hull and supporting said engine, said exhaust housing having an exhaust gas passage; ~~and being flanked on opposite sides thereof by said side walls of said thrust bracket;~~

verbatim [a thrust bracket arranged between said water jet propulsion system and said stern of said hull and comprising side walls] arranged to receive the exhaust housing therein and prevent lateral rotation of the exhaust housing when the exhaust housing is situated therein;

an axial-flow pump unit attached to said exhaust housing, said axial-flow pump unit comprising a water duct, an impeller mounted to a generally horizontal impeller shaft and rotatable inside said water duct, and an exhaust gas passage in fluid communication with said exhaust gas passage of said exhaust housing; and

a drive train for coupling said engine to said impeller shaft for driving said impeller shaft to rotate during engine operation.

Blanchard, Clarence E.

U.S. Serial No. 09/927,719

43. (Once Amended) A jet-powered boat comprising a hull having a stern and a bottom, an outboard water jet propulsion system pivotably mounted to said hull, and a thrust bracket arranged between said outboard water jet propulsion system and said stern of said hull, wherein said thrust bracket comprises a flat mounting plate that lies flat against said stern and a pair of side thrust walls extending generally parallel to each other and generally perpendicular to said mounting plate, said side thrust walls flanking respective adjoining portions of said outboard water jet propulsion system and arranged to restrain prevent lateral displacement of said adjoining portions of said outboard water jet propulsion system due to side thrust in either direction.